

ENERGY EFFICIENT COMPACT OIL AND WATER SEPARATOR

ABSTRACT

An energy efficient and compact oil and water separator through which the oil and water flow for the purpose of extracting water from the oil and oil from the water made more efficient and compact by incorporating a precise control of the hydrodynamics through the application of permeable barriers on which the permeability is adjustable to compensate for variations in flow rate, density and viscosity of the oil and water, a downward flow of the oil through an electric field to mitigate the problem of high water content causing an electrical short circuiting of the electric field and a heating means with enhanced heat exchange capability.